

***PSEUDOTSUGA MENZIESII* - *TSUGA HETEROPHYLLA* /  
*VACCINIUM OVATUM* / *POLYSTICHUM MUNITUM***

Douglas-fir – western hemlock / evergreen huckleberry / sword fern  
Abbreviated Name: PSME-TSHE/VAOV/POMU

Sample size = 9 plots

**DISTRIBUTION:** In Washington, occurs only in the central Puget Trough, including Kitsap, western Pierce, northern Thurston, Mason, Jefferson, and probably southern Island, counties. Also occurs in the central Coast Range of Oregon.

**GLOBAL/STATE STATUS:** G3S1. There are less than 10 known occurrences in Washington, and most of these are small in extent and marginal in condition. Most stands have been harvested in the past. Development has also impacted this type and continues to be a threat.

**ID TIPS:** Evergreen huckleberry >5% cover and sword fern >3% cover. Salal and evergreen huckleberry usually dominate.

**ENVIRONMENT:** These sites are moderately moist and appear to be medium to rich in relative nutrient status. Slope and aspect is variable, but usually not too steep. Parent material is usually glacial till, but also includes glacial outwash sands. Soil texture is usually gravelly or sandy. Annual precipitation is moderate to high for the Puget Trough ecoregion.

**Precipitation:** 37-66 inches (mean 51)

**Elevation:** 40-900 feet

**Aspect/slope:** all/ 2-48%(mean 25% slope)

**Slope position:** short, upper, mid, lower, ridgetop

**Soil series:** Alderwood, Harstine, Hoodsport, Indianola, Ragnar, Triton

**DISTURBANCE/SUCCESSION:** Fire is the primary natural disturbance. Old-growth stands show evidence of past low- to moderate-severity fire (underburns). Western hemlock and/or redcedar increase over time in absence of disturbance, Douglas-fir decreases, though still remains prominent after hundreds of years. Young stands may have little hemlock or redcedar.

**Douglas-fir – western hemlock / evergreen huckleberry /  
sword fern**

**Vegetation Composition Table (selected species):**

Con = constancy, the percent of plots within which each species was found;  
Cov = cover, the mean crown cover of the species in plots where it was found.

Trees	Kartesz 2003 Name	Con	Cov
Douglas-fir	Pseudotsuga menziesii var. menziesii	100	56
western redcedar	Thuja plicata	100	35
western hemlock	Tsuga heterophylla	100	27
bigleaf maple	Acer macrophyllum	56	5
<b>Shrubs, Subshrubs</b>			
evergreen huckleberry	Vaccinium ovatum	100	26
salal	Gaultheria shallon	100	18
red huckleberry	Vaccinium parvifolium	89	3
dwarf Oregongrape	Mahonia nervosa	78	6
trailing blackberry	Rubus ursinus var. macropetalus	67	1
twinline	Linnaea borealis ssp. longiflora	44	4
oceanspray	Holodiscus discolor	44	4
beaked hazelnut	Corylus cornuta var. californica	33	7
Pacific rhododendron	Rhododendron macrophyllum	22	11
<b>Forbs and Ferns</b>			
sword fern	Polystichum munitum	100	12
western starflower	Trientalis borealis ssp. latifolia	78	1
twinline	Linnaea borealis ssp. longiflora	44	4
bracken fern	Pteridium aquilinum var. pubescens	44	4
sweet-scented bedstraw	Galium triflorum	33	+

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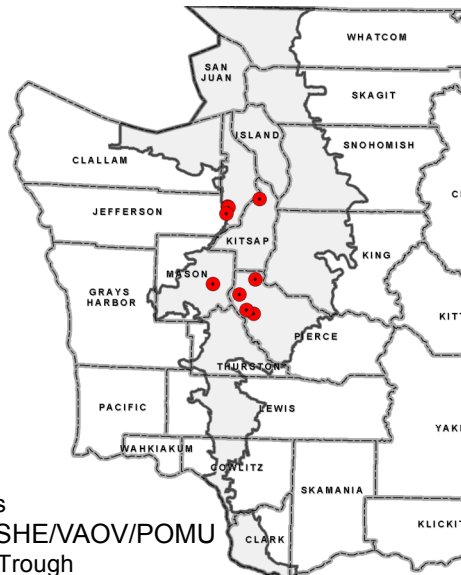


**Douglas-fir – western hemlock / evergreen huckleberry / sword fern**

**VEGETATION:** Douglas-fir tends to dominate the uppermost canopy layer. Western hemlock or western redcedar often co-dominate the canopy or dominate tree regeneration. Bigleaf maple is often present. Evergreen huckleberry and salal typically co-dominate the shrub layer. Pacific rhododendron is occasionally prominent to co-dominant. Sword fern dominates the herb layer and is usually prominent. Red huckleberry, trailing blackberry, dwarf Oregongrape, and western starflower are usually present.

**CLASSIFICATION NOTES:** Also described by Chappell (1997). Chappell (2001) considered this part of PSME-TSHE/GASH/POMU. NatureServe (2004) name is TSHE/VAOV, which is described by Hemstrom and Logan (1986) and McCain and Diaz (2002a) for the Oregon Coast Range.

**MANAGEMENT NOTES:** Stands that have not been previously harvested, especially mature and old-growth, should be considered for conservation status. Red alder can regenerate abundantly after logging of this association, especially if bare ground is exposed. These sites appear to be relatively productive for tree growth. Non-native English ivy (*Hedera helix*) probably does well on these sites and is a severe threat if it becomes established.



Plot locations  
of PSME-TSHE/VAOV/POMU  
in the Puget Trough